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FOREST CONTROL

by

CONTINUOUS INVENTORY

"Today I have grown taller from walking
with the trees."

...Karle Wilson

Milwaukee, Wis. March, 1959 No. 60

DESIDERATA

Go placidly amid the noise and the haste, and remember what peace there may be in silence . . . As far as possible, without surrender, be on good terms with all persons. Speak your truth quietly and clearly; and listen to others, even to the dull and the ignorant; they too have their story. Avoid loud and aggressive persons; they are vexatious to the spirit . . . If you compare yourself with others, you may become bitter or vain, for always there will be greater and lesser persons than yourself. Enjoy your achievements as well as your plans. Keep interested in your own career, however humble; it is a real possession in the changing fortunes of time. . . Exercise caution in your business affairs, for the world is full of trickery. But let this not blind you to what virtue there is; many persons strive for high ideals, and everywhere life is full of heroism . . . Be yourself. Especially do not feign affection. Neither be cynical about love; for in the face of all aridity and disenchantment, it is as perennial as the grass . . . Take kindly the counsel of the years, gracefully surrendering the things of youth. Nurture strength of spirit to shield you in sudden misfortune. But do not distress yourself with dark imaginings. Many fears are born of fatigue and loneliness. Beyond a wholesome discipline, be gentle with yourself. You are a child of the universe no less than the trees and the stars; you have a right to be here. And whether or not it is clear to you, no doubt the universe is unfolding as it should. Therefore be at peace with God, whatever you conceive Him to be . . . And whatever your labors and aspirations, in the noisy confusion of life, keep peace in your soul. With all its sham, drudgery and broken dreams, it is still a beautiful world. Be cheerful. Strive to be happy.

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FORMULAS AND FACTORS FOR COMPUTING THE CUBIC FOOT VOLUME
OF LIMBWOOD IN INDIVIDUAL TREES

The Timber Resource Review of recent years pointed out that our wood supply will become increasingly tight in the years ahead. This is due to several factors, the most important of which is our rapidly increasing population. The problem is generating thought toward the need for a more complete utilization of the timber which will be cut for the market in future years.

One way to more fully utilize the trees cut is to incorporate the use of limbwood sections over 4" in top diameter, for pulpwood and related products. The first step in this worthwhile direction is knowing how much of this kind of material will be available in sawlog stands. To find this out we have developed a limbwood formula and a set of standard limbwood factors for machine computations.

The limbwood volume formula and factors are used with individual sawlog trees after their board foot volume is machine calculated. The information for these ready tools of forest mensuration was taken from Technical Note 390, January, 1953, published by the Lake States Forest Experiment Station.

Limbwood factors are applied to the gross International board foot volume of each individual tree by usable sawlog length classes, and not by DBH. Neither top nor limbwood is appreciably affected by the diameter of the tree but they both vary much more directly with change in the sawlog usable length.

The factors for limbwood are primarily intended for use on large areas of somewhat mixed hardwood timber and are designed to give results of reasonable accuracy, in terms of net cubic feet.

THE FORMULA:

$$Vl = (Vi) (Sp) (Cl)$$

IN WHICH:

	<u>Decimals</u>
Vi = Gross International board foot per tree	XXXX.X
Sp = Species correction factor	X.XX
Cl = Limbwood factor	.XXXX
Vl = Limbwood volume in net cubic feet per tree	XX.X

EXAMPLE FOR A MAPLE TREE 18" IN DBH, WITH 32 FEET OF USABLE SAWLOG LENGTH

$$Vl = (237.9) (1.05) (.0620)$$
$$Vl = 15.5 \text{ net cubic feet}$$

We have applied these factors to the sawlog trees in Stone's Woods for a test run and find interesting results. The gross per acre volume for these sawlog trees (bodywood, topwood and limbwood combined) was 2403.7 cubic feet. Of this, 608.1 cubic feet was limbwood. This represents an additional 25% in volume. In today's markets, this is non-usable material. In tomorrow's markets, with tomorrow's technological advancements, and tomorrow's economic conditions, this present day waste may be a highly sought after resource.

FACTORS FOR COMPUTING THE CUBIC FOOT VOLUME
OF LIMBWOOD IN INDIVIDUAL HARDWOOD TREES

<u>Usable Sawlog Length in Feet</u> <u>(8" min. top d.i.b.)</u>	<u>Limbwood Factor</u>
04	.1365
06	.1310
08	.1255
10	.1200
12	.1145
14	.1090
16	.1035
18	.0980
20	.0930
22	.0875
24	.0825
26	.0775
28	.0720
30	.0670
32	.0620
34	.0575
36	.0535
38	.0495
40	.0460
42	.0430
44	.0400
46	.0375
48	.0355
50	.0335
52	.0320
54	.0300
56	.0290
58	.0280
60	.0270
62	.0260
64	.0255
66	.0250

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